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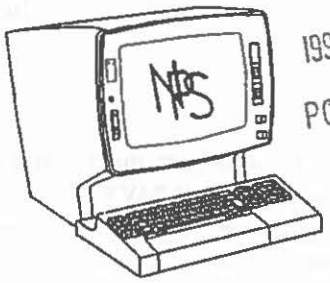

Computer Center Bulletin

Naval Postgraduate School | January 3, 1991 | Monterey, California

WINTER QUARTER TALKS

The Computer Center staff will give twenty-nine talks at the beginning of this quarter to acquaint users with the various facilities of the VM/CMS timesharing and MVS batch systems available on the mainframe and with the services available in the Center's Microcomputer Lab. In addition, Prof. P. A. W. Lewis (OR) will present two introductory talks about interactive statistical/graphical services using APL.

The following five talks will be given in the Ingersoll Hall auditorium, In-122. Signup is not required for these sessions.

Introduction to VM/CMS: In-122

1010 Wednesday	**9 January**	**Dennis Mar**	**In-122**
1510 Monday	**14 January**	**Dennis Mar**	**In-122**

This talk is given twice; it assumes no prior knowledge of the Center's computer. Topics to be covered include the use of the 3278 terminal, how to logon and logoff, use of the function keys, the HELP facility, and various general-purpose commands. It is strongly recommended for all new users of the Center and covers information which may not be provided in an introductory programming class. Be sure to bring a copy of Technical Note VM-01, *User's Guide to VM/CMS at NPS*. A copy of this publication is usually provided when a new user registers in In-147. (Those without computer experience may wish to consider instead the Center talk *Hands-on Mainframe*.)

Introduction to XEDIT: In-122

1010 Thursday	**10 January**	**Helen Davis**	**In-122**
1410 Tuesday	**15 January**	**Helen Davis**	**In-122**

This talk is presented twice. It provides elementary information about the XEDIT full screen editor. The main emphasis is on methods for creating and changing programs and other files. Use of the PF keys and HELP facility in XEDIT are mentioned. The talk assumes little or no familiarity with XEDIT, but prior attendance at *Introduction to VM/CMS* is recommended. (Those without computer experience may wish to consider instead the Center talk *Hands-on Mainframe*.)

Introduction to E-Mail: In-122

1010 Wednesday	**16 January**	**Caroline Miller**	**In-122**

Every IBM mainframe user at NPS has two electronic mail addresses. This talk provides information on the electronic mail services supported by the Computer Center on the IBM mainframe. Two data networks will be introduced: the academic BITNET (Because It's Time NETwork) and the DDN (Department of Defense Network). Topics to be discussed include procedures for sending a short note to a local or remote computer, how to transfer files between different computers, and what information is available to assist in finding the network addresses for persons who may be contacted via the networks.

All other talks, described below, will be given in In-119, In-148, In-151, Ro-222, Ro-260, or Ro-262. *Signup for these sessions is required. Those interested in attending should sign up in the Consulting Office, In-146 to reserve a seat.*

WordPerfect Thesis Styles: In-151

1510 Wednesday	**9 January**	**Larry Frazier**	**In-151**
1510 Wednesday	**16 January**	**Larry Frazier**	**In-151**
1010 Friday	**18 January**	**Larry Frazier**	**In-151**

This talk will be given three times. It covers the use of WordPerfect to produce a thesis in NPS-approved format. ***Those attending this talk must be familiar with WordPerfect, and have a prior knowledge of fundamental MS-DOS commands*** either through attendance at a Computer Center talk or by training or practice elsewhere. Topics covered include specific formatting requirements for theses, and Style Sheets developed at NPS to simplify the production of theses. On-line and printed documentation in the form of a sample thesis will be provided; this and the style sheet can be copied for use with WordPerfect 5.0 and 5.1 elsewhere.

Introduction to WordPerfect: Ro-262

1410 Wednesday	**9 January**	**Kathy Strutynski**	**Ro-262**
1010 Tuesday	**15 January**	**Kathy Strutynski**	**Ro-262**
1410 Thursday	**17 January**	**Jim Horning**	**Ro-262**

Enrollment for these talks is open only to students and faculty. Attendees must have a prior knowledge of MS-DOS. Class space is limited. This talk is 90 minutes in length. Sign up for one talk only. This talk will be given three times this quarter.

WordPerfect is available in many NPS microcomputer LANs. This talk will introduce you to some of WordPerfect's fundamental capabilities. You will learn how to enter text, access WordPerfect's help facility, save and retrieve your files, and use the spelling checker.

APL and Related Programs on Microcomputers: Ro-260

1510 Thursday	**10 January**	**Prof. P.A.W. Lewis**	**Ro-260**

This talk discusses the versions of APL and APL2 which are available for micro computers. These include STSC's APL*PLUS version 9, STSC's APL*PLUS II Version 2, and IBM's APL2/PC and APL232/PC. These programs all feature full screen editors and session managers. The statistics package STATGRAPHICS, which is based on APL*PLUS, will be demonstrated and storage problems of the package will be discussed. Mainframe to micro communication, graphics and hardcopy output will also be covered.

Introduction to GML: In-119

1410 Thursday	**10 January**	**Larry Frazier**	**In-119**

Generalized Markup Language (GML) provides a set of commands that simplifies the task of using the DCF document composition facility of ScriptVS to prepare papers and other research publications on the mainframe. It takes care of footnotes, figures, tables, and

mathematical formulas and will also generate a Table of Contents for your paper. Graphics from Disspla and Grafstat may be printed directly with GML laser printer output. *Attendees should be familiar with the timesharing system.*

Introduction to Minitab: In-119

0910 Thursday 10 January Dennis Mar In-119

Minitab is an interactive statistical computing system available on VM/CMS. It is designed for moderate-size data sets which can be stored on a CMS A-disk. Minitab is quick and especially useful for exploring data, plotting, and regression analysis. *Attendees should be familiar with the timesharing system.*

Network DOS Introduction: In-151

1410 Thursday 10 January Kathy Strutynski In-151
1310 Thursday 17 January Kathy Strutynski In-151

Enrollment for these talks is open only to students and faculty. This is a combination 75-minute talk and lab session; it will be given twice. This talk is given in a Local Area Network (LAN) hands-on environment. It is designed for beginners who are interested in using the microcomputer facilities available in the Computer Center microlab and other NPS labs. Features covered include logging into a network, using basic MS-DOS and Netware commands, creating and naming DOS files, and creating and accessing DOS subdirectries. Other topics include basic MS-DOS commands such as type, print, copy, and sort.

Hands-on Mainframe: Ro-222

1010 Friday 11 January Helen Davis Ro-222-E

This session is designed for those who find the thought of learning to use the mainframe computer a bit intimidating; it combines the information from two separate lectures, *Introduction to VM/CMS* and *Introduction to XEDIT*. This will be a single two hour class in a terminal room so that you can work with CMS, FILELIST, RDRLIST, and XEDIT during the session. Class size is limited to 14 due to the number of terminals.

Micro Lab Network: In-151

1410 Monday 14 January Jim Horning In-151
1410 Tuesday 15 January Jim Horning In-151

The Micro Lab is offering a class about using Novell networks, in particular the Micro Lab's network. This class assumes you are familiar with DOS commands, and DOS disk and file organization. During this class, you will be exposed to several network utilities that help you monitor printing, ask for extended file and directory information, list user information, list available network fileservers, etc.

Introduction to GRAFSTAT: Ro-260

1510 Monday 14 January Prof. P.A.W. Lewis Ro-260

This talk will give a brief introduction to GRAFSTAT, an APL package for interactive scientific-engineering plotting, graphics output development, applied statistics, and data analysis. The program features a full-screen interface, complete on-line help, color graphics capability and effectively combines computation and graphics. Complete routines for least squares fitting, fitting of probability distributions, design and implementation of quality control charts, regression and time series analysis are available.

Introduction to GThesis: In-119

1410 Monday 14 January Larry Frazier In-119

GThesis is an addition to the IBM Script (DCF) document composition system that simplifies producing a thesis to NPS standards. The talk will be useful only to those with some familiarity with Script (GML). *Attendees should read the first three chapters of TN VM-14, the GThesis documentation, (available in In-146), and bring this reference to the talk.* See the related GML talk.

WordPerfect Tables, Equations & Graphics: Ro-262

0910 Monday 14 January Kathy Strutynski Ro-262
1410 Wednesday 16 January Jim Horning Ro-262

Enrollment for these talks is open only to students and faculty. This class takes 90 minutes, and will be given twice this quarter. Class space is limited. *Sign up is required. Attendees must have a prior knowledge of fundamental MS-DOS commands and be very familiar with WordPerfect* either through attendance at a Computer Center talk or by training or practice elsewhere. These talks are hands-on tutorials on WordPerfect tables, equations and graphics.

Intro to Xerox Desk Top Publishing: In-148

1010 Tuesday 15 January Yvette Grady In-148
1410 Thursday 17 January Yvette Grady In-148

This one-hour class will introduce new or casual users to the fundamentals of desktop publishing using Xerox's workstation environment. You will learn key concepts of the desktop, windows, how to create simple documents, and use of basic graphics.

Intro to the Formula Formatter: In-119

1410 Tuesday 15 January Larry Frazier In-119

Those using GML and GThesis on the mainframe to prepare theses or other documents, and requiring the formatting of mathematical formulas, should attend this new presentation. Many find it possible to learn IBM's formula formatter using only printed documentation, but many will find the learning process simpler with this talk. Square roots, multi-line brackets, matrices, complex sub- and super-scripts, and much more are all formatted automatically by this package. *Attendees should be familiar with GML (Script) and the timesharing system.*

Those using WordPerfect may wish to attend one of the Center talks on new WordPerfect 5.1 features, which include its version of formula formatting.

Introduction to SAS: In-119

0910 Tuesday 15 January Dennis Mar In-119

SAS, the Statistical Analysis System, is a flexible program for handling all phases of data analysis: retrieval, data management, statistical analysis, and report writing. It has excellent features for merging and subsetting data sets. The speaker will describe the required data format and SAS control statements for a simple problem. Both the batch and timesharing modes of execution will be demonstrated.

Introduction to DISSPLA: In-119

1110 Thursday 17 January Helen Davis In-119

DISSPLA, a library of Fortran subroutines, allows the user to create a wide variety of graphics. This talk will focus on getting started with DISSPLA using the DISSPLA exec, the basic features of DISSPLA, and the required structure of the DISSPLA program to create graphs. Some knowledge of Fortran is helpful, but not required.

Introduction to REXX: In-119

1410 Thursday 17 January Dennis Mar In-119

REXX is a CMS command programming language. It is the successor to EXEC2. REXX is especially useful for creating personal execs and XEDIT macros. This introductory talk covers REXX input/output, variable manipulation, structured programming features, and embedding CP and CMS commands.

Neil Harvey

AMDAHL 5990 INSTALLED AT CHRISTMAS

It's 10:30, Wednesday, 19 December. As I write this note, large equipment boxes are passing in procession on the path outside my office. Put together, they form an AMDAHL 5990-500 which will be installed tomorrow to replace the IBM 3003 AP computer. Tonight, at 6 PM, we will shut down the 3033 for the last time and begin to remove it. It is headed for the scrap yard, or wherever it is that old unwanted computers go.

It is almost 10 years to the day since it was installed. Needless to say, we have mixed feelings regarding its demise. It has been the workhorse machine at NPS during the 80's -- well, at least the first half! It was clear in 1985 that it could no longer satisfy the school's insatiable demand for computing power and capacity.

We remind everyone that the AMDAHL system will benefit initially only the VM/CMS users. MVS/SP will continue to be run on the remaining IBM 3033 U and the IBM 4381 computers. We hope that by the time you read this, the AMDAHL will be fully on-line running all your existing VM/CMS applications as before, but faster and larger.

In the next issue of the Bulletin we'll describe the next phase of the conversion from the IBM 3033 hardware and the "old" operating systems, the SP versions of VM and MVS, to the AMDAHL and the XA (Extended Addressing) environments. Only then will we be able to take full advantage of the capacity and architecture of the AMDAHL system.

Prof. Doug Williams, Director

NEW RELEASE OF DISSPLA INSTALLED

The default DISSPLA release has been advanced from 10.5 to 11.0 on the VM/CMS system. MVS will continue to run release 10.5 temporarily. DISSPLA is a principal, mainframe library of Fortran-callable graphics subroutines.

The method for invoking DISSPLA remains the same. In CMS, type:

```
DISSPLA
```

For MVS, use the appropriate cataloged procedure: VSF2CLGD, VSF2CLGS, or VSF2CLGR.

Reference manuals for DISSPLA 11.0 can be found in the Consulting Office (In-146) and the Graphics Terminal Room (In-148). Copies of the *DISSPLA Pocket Guide* for Version 11.0 can be purchased at the NPS Bookstore.

Problems due to the DISSPLA installation may be directed to June Favorite (In-110, x3432). Questions about converting DISSPLA 10.5 programs to 11.0 should be directed to Helen Davis (In-112, x2446) or Dennis Mar (In-102A, x2672).

Menu Modifications

Users will notice some modifications to the full-screen DISSPLA input panel on the VM/CMS operating system.

- If a temporary disk already exists as a result of a **TDISK nn DIS** command, the input panel shows the number of cylinders defined. Previously, the panel did not display this information and always showed a '0'.
- The user may select between (1) IMSLSP, (2) IMSLDP, or (3) IMSL 1.1 as a library to be searched at LOAD time. Initially, the exec scans the user's GLOBAL TXTLIB for the IMSL version declared and shows that selection on the panel.
- The exec checks any externally declared filedefs for possible conflicts with DISSPLA filedefs. If a conflict is detected, the user is warned but the exec continues. Internally declared filedefs, through OPEN or EXCMS statements, cannot be checked.

DISSPLA may also be used in a command (instead of menu) format. This method has been simplified to ease the use of DISSPLA in an unattended mode *e.g.,* through VMSchedule. The command would look like this:

```
DISSPLA filename
```

The Fortran program must be compiled beforehand. If 'filename TEXT' doesn't exist, the exec stops. All necessary FILEDEFs must be declared. Previously, the exec would prompt the user for this information.

DISSPLA 10.5

DISSPLA version 10.5 will remain on CMS for about 30 days. Users may invoke it by typing the exec name:

```
DISSPLAX
```

Licensing restrictions will force the removal of DISSPLA 10.5 on CMS after this transition period. Users are urged to try important plotting programs with the new version as soon as possible.

Dennis Mar

MICROCOMPUTER TOPICS

WordPerfect Font Tips

The following paragraph is adapted from an article in the University of Waterloo's DCS Newsletter 71.

WordPerfect users may wish to print footnotes or equations in a slightly larger or smaller font. A footnote or equation is printed in the font that was in effect at the most recent **Options** setting. Thus, to print equations in a larger font, use Ctrl-F8 to select a larger font, do Alt-F8, E for Equations, and then O for Options. If you don't care to make any option changes, simply exit. Then use Ctrl-F8 again to set the font to the size you want for the regular text of your document. As always with fonts, the font availability will vary according to what printer you have selected, and will change when you change printers.

Another point of interest to those using WordPerfect's formula formatter: by default, WordPerfect will form all characters in formulas as graphics objects. This will give the best results with any printer except a PostScript printer (the Center micro lab in In-151 has a PostScript printer). If you change this Print as Graphics option to No, the appearance of your equations on many printers will change. If some of your equations are set to Print as Graphics Yes, and others to No, it will look as if some were printed bold, and others not. (With a PostScript printer, your file will print more quickly if you set Print as Graphics to No.)

Larry Frazier

Thesis Cover Page, Signature pages and DD1473 Form

If you are using the Xerox desktop publishing system to produce your thesis, you can use the workstations to print your thesis cover page, thesis signature page, and the DD1473 form. Look for a small manual, in either In-151 or In-148, that explains these procedures.

The Micro Lab no longer supports thesis cover and signature page printing using WordPerfect. Editing and printing these documents on the Xerox workstations is much quicker for the user and easier for the staff to support.

Jim Horning

Zenith 248 Batteries

Yes, your Zenith 248 (standard DoD desktop computer) and every other AT-compatible computer, including standard desktop, non-portable computers, has a battery. The battery powers memory which stores the current date and time and other information about your particular computer. This way, that information isn't lost when your computer is shut off.

The battery is the size of an AA battery, but a standard AA battery won't work. Your AT-type computer requires a battery with a different voltage than the standard AA battery. As you might expect, the battery you need is around $8, rather more expensive than you

might expect. It's commonly available at electronics supply stores in town, and through Ready Supply.

The battery lasts around three years; when it fails, your computer will not work at all, and there is no warning that your battery is about to go. When it fails, you may get some kind of message on your screen as your PC tries to boot up, but the message won't mention batteries at all. Replacing the battery doesn't require sending the machine out for service. Anyone who knows how to take the computer cover off may well be able to replace the battery and reset the stored information The moral here: have a spare battery available.

Write Down the Information Now

Now: if you **really** want to be prepared, you can record on paper the information being preserved by battery. If your office computers are superbly organized, someone has already recorded that information somewhere, but if you want to play it safe, here's what you can do (assuming you are using a Zenith 248). The following assumes also that your PC is being used in a situation where you occasionally turn off the machine or reboot it. If your PC application can not be rebooted, don't go through the following procedure.

When you are not in the middle of doing something else on your PC, hold down the Control key and then Alt and then Enter, all at once. You'll see -> as a prompt. Type

```
setup
```

The selections that have been put in place for your PC are indicated in reverse video. Write them down on paper (you don't even have to know exactly what they mean).

When you've got them all recorded, press the ESC key, and answer Y to the prompt, then (assuming you haven't made any setup changes that you want to save) press ESC again. Then reboot. See Larry Frazier (In-113, x2671) with any questions.

Larry Frazier and Jim Horning

PROGRAMMING TIPS

Accessing MVS Data Sets While Running CMS DISSPLA

Here is a simple procedure which allows you access to large data sets on MVS without using up your CMS minidisk space.

Locating Your Data Sets on MVS

If you have a recent listing from a job that used the data set you are interested in, just look in the top portion of the listing. It tells the MVS volume where your data are stored. Otherwise, to find the MVS volume where your data set is, issue this command from CMS:

```
MVSHELP
```

MVSHELP is an EXEC written by a staff member to help you work with your MVS files without writing complicated job control language. Option 1 of MVSHELP will obtain a listing of all data sets and send a report to your virtual reader. This report will also indicate if data sets have been migrated from the MVS volume. If the data set you are interested in has been migrated, you can use MVSHELP to RECALL your data set. (Option 5)

Linking to MVS Volume

Once you know the volume number where your data are located, you can attach that volume to your virtual machine by issuing this command from CMS:

```
LINKTO MVS###
```

where ### is the volume number of the MVS disk where your data set is stored.

The system will attach this MVS volume and will respond with a message like this:

```
Linked to user MVS123 as 120 mode B
```

In this example, the system responds that MVS123 volume has been linked and the filemode is B.

Fortran Filedef Command

Your Fortran job must have a FILEDEF statement. This is the CALL to include a FILEDEF in your DISSPLA job:

```
FILEDEF FTnnF001 fm DSN MSS.S####.filename
```

where, *nn* is the unit number in your Fortran code to read the data, *fm* is filemode ('*' to search all attached disks until the file is found) and *MSS.S####.filename* is the MVS DSNAME.

Detach the Temporary Disk

If you intend to continue working in CMS but have no more use for the MVS volume, use this command to release the volume:

```
REL fm (DET
```

Helen Davis

Color Output on the TEK 4693D

Please reserve output to the TEK 4693D color printer for your final copy. Required supplies are very limited and the cost per print is fifty-one cents. Transparencies are more than three times the cost of paper.

Currently this color printer is located in In-110, the private office of June Favorite of the Center's System Support Group. If you need TEK 4693D output and June is not in her office, please contact Ruth Roy (In-109). Since the color printer is in an office it is not presently available after office hours nor on weekends. The color printer will be moved to a public area as soon as security logistics are worked out. Until then it is advisable to check with either June or Ruth to see that the device is turned on and no one is sending output for transparencies, *before you use the DISSPOP or PSEG execs to output to the color printer.*

To obtain color output on the TEK 4693D the graphics must be in a DISSPLA or ADMGDF metafile.

DISSPLA Technical Note VM-12, *Using DISSPLA at NPS,* (available in the Consulting Office, In-147) shows how to create a DISSPLA metafile. Then use the DISSPOP exec; from the menu screen, select **CX4693.**

GRAFSTAT With an ADMGDF metafile from Grafstat, use the PSEG exec. From the menu screen, enter the filename of your ADMGDF file; below the filename enter the letter **B** to select the TEK 4693D color printer. The line width is set by default at the most commonly used value. The options on the menu below the line width do not apply to the TEK 4693D color printer.

GRAFSTAT users can find out how to create an ADMGDF file by referring to the GRAFSTAT documentation written by Prof. Peter Lewis. A copy is available in the reference rack outside In-147.

DSL DSL users can see how to create an ADMGDF metafile in Technical Note GEN-04, the basic local DSL reference (available in In-147). After that, use the PSEG exec. The method is similar to sending graphics output to the IBM 3800 printer, except that only the first three fill-ins on the PSEG menu screen apply to the color printer.

June Favorite

Future Plans for Statistical Packages

This article provides information about coming releases to statistical package users on the mainframe. During the winter quarter, new versions of both SPSS and SAS will be installed on a test basis.

SAS 6.06 to Replace 5.18

The new SAS version 6.06 will eventually supersede the present version 5.18. Version 5.18 will remain on the system during 1991 to provide time for users to make the transition.

Version 6.06 contains a major change in the format of the SAS system files. Instead of direct access format, the new files are written in sequential format. This change will simplify their maintenance and improve their portability.

With version 6.06, the SAS Supplemental Library is removed. This library contained procedures contributed by SAS users. The more valuable procedures such as PROC LOGIST have been added to the basic SAS library. Minor or obsolete supplemental procedures have been dropped.

SAS Institute has published a new set of manuals for version 6.06. A list and description of the recommended manuals will be published in the next edition of the *Bulletin.*

SPSS Upgrade

SPSS software will be upgraded on CMS (version 3.1 to version 4.1) and MVS (version 3.0 to 4.0). They will replace the current software at the start of the spring quarter (April 1991). In addition, the software's name is returning to "SPSS" from "SPSS-X". SPSS version 4 offers new features, such as logistic regression and matrix computations. Documentation is presented in three new volumes:

SPSS Base System User's Guide
SPSS Advanced Statistics System User's Guide
SPSS Reference Guide

A summary and recommendation about each volume will also be published in the next *Bulletin.*

Dennis Mar

Migrating from Minitab to SAS

Many of you will find yourselves moving from Minitab to SAS for your data analyses this quarter. It seems that just when Minitab gets comfortable to use, you begin to need the power of SAS for handling larger data sets and using more advanced statistical techniques. It should be encouraging to know that your experience with the system, data handling, and statistics on Minitab will be a big help in learning SAS.

Observations and Variables Versus Rows and Columns

First, some basic terms differ between Minitab and SAS. What Minitab refers to as a "row", SAS calls an "observation", and Minitab's "columns" are called "variables" in SAS. Observations are the individual units of the data. An observation can be almost any unit of analysis: an individual, a recruiting district, or a country. Variables are the different measurements. Examples of variables are gender, age, GNP, or anything that can be measured about the observation.

Example SAS Program

A typical SAS job will contain a data paragraph and a procedure paragraph. This is a simple SAS job:

```
DATA LONGLEY;
INPUT
          YEAR   $  1-4
          EMPLOY    6-10
          GNPDEF    12-16
          GNP       18-23
          UNEMPLOY  25-28
          ARMY      30-33
          POP       35-40;
GNPSQ = GNP*GNP;
CARDS;
1947 60323  83.0 234289 2356 1590 107608
   ...
1962 70551 116.9 554894 4007 2827 130081
;

PROC REG;
     MODEL EMPLOY=GNPDEF GNP UNEMPLOY ARMY POP YEAR;
```

The DATA statement marks the beginning of the data paragraph and names the data set LONGLEY. Data are read and transformations are made in this data paragraph. The PROC REG statement marks the beginning of the procedures paragraph. The procedure paragraph performs the analysis of a data set. One thing to note when using SAS is **all SAS statements end with a semicolon.**

Batch Versus Interactive

SAS operates in a batch mode, not an interactive mode like Minitab. The first step here is to use XEDIT to create a file which contains your SAS statements. You can give the file any valid name, but, to run your program in the CMS version of SAS the filetype *must* be SAS. Once this file has been created you can run it through SAS. When SAS has finished processing, the results will be returned to your virtual reader.

CMS Processing

To process this file with CMS SAS use this command:

```
SAS filename
```

Results will be written to two files on your disk. These will be called 'filename SASLOG' and 'filename LISTING'. The SASLOG file contains your instructions to SAS and the responses from SAS. The LISTING file will contain the results of the procedure paragraph.

MVS Processing

To process this file under the MVS version of SAS, you must add this job control language (JCL) to the top of the file: The Xedit command *MVSJOB (SAS* will automatically produce these lines.

```
//jobname  JOB (1234,9999),'programmer name',CLASS=A
//*MAIN SYSTEM=SY2
//   EXEC SAS
//SYSIN DD *
```

This file can be submitted to the MVS processor with this command:

```
SUBMIT filename filetype
```

The results will be written to a file named 'filename OUTPUT' and will be returned to your virtual reader.

More Help

For more information about SAS, pick up a copy of Technical Note MVS-08, *SAS on MVS*, in the consulting office, In-146. This publication helps with the basics in SAS and tells you the specifics you need to process data with SAS on this system. Dennis Mar will also be giving an *Introduction to SAS* talk this quarter. (See the talk schedule in this issue of the *Bulletin.*)

Helen Davis

MISCELLANEOUS MATTERS

Useful Online Information Files

The Center's staff maintains many online HELP files to provide information or assistance in performing tasks on the mainframe, the Center Micro Lab and the other departmental facilities. A listing of these HELP files appears on the inside covers of Technical Notes VM-01 and MVS-01. Seven useful or informational files are:

ABEND Provides assistance in determining the probable causes of System Completion (ABEND) codes, for example, S0Cn or Snnn. Information is currently available for some VS 2 Fortran AFB messages and some of the more common IEC, IEF, IEV, IEW and IFY 370 System messages. If logged on to VM, from CMS issue: **ABEND nnnn**

If you desire to reference a second message while in the ABEND file, the command to see additional messages is slightly different. Enter **CODE nnnn** for all additional messages or codes.

CCPUBS Provides a list of all Center publications, the date of the current edition, any known errata, and the point-of-contact for the publication. If logged on to VM, from CMS issue: **CCPUBS**

DOCFILE Provides a location for hard copy references for software, past and present, that is or was installed on the mainframe. If logged on to VM, from CMS issue: **DOCFILE**

LABS Provides a location for the various computer facilities on campus, the software and hardware available, hours of operation, services available, points-of-contact and departmental policies for using the lab.

SOFTWARE Identifies software that is available on the mainframe and in the Center's Micro Lab. It identifies points-of-contact for the software if other than the Center staff. If logged on to VM, from CMS issue: **SOFTWARE**

MVSHELP Provides assistance in obtaining information about MVS data sets (files). You can obtain a list of your data sets, allocate space for a data set, delete, rename, or recall data sets. Additionally there are examples of utility programs to manage data sets, copy data sets to CMS, or to obtain a list of expiring data sets. If logged on to VM, from CMS issue: **MVSHELP**

TAPEHELP Provides assistance in determining the characteristics of information stored on magnetic tape or magnetic tape cartridges. You can list the characteristics of any tape, the characteristics of IBM standard labeled tapes, the contents of tape files, or the first part of every file on a tape. If logged on to VM, from CMS issue: **TAPEHELP**

Neil Harvey

Staff News

Roy Romo, manager of our Operations Group, also belongs to a Medevac Support Army Reserve Unit based at Fort Ord. On Dec. 6 his unit was called to active duty under Operation Desert Shield. When last seen he was headed for Colorado. All the Center's staff and his many friends in the user community hope he returns quickly and safely. During his absence, Ruth Roy (In-109, x2796) will handle his management responsibilities, while Terry Gentry (In-147, x2731) will receive the operational questions.

We welcome a new operator, Mark Ebbert, to the Operations staff. He is working the weekday 0800-1600 shift. Mark transferred from Fleet Numerical Oceanography Center where he was a lead operator. Mark is a self-taught sculptor specializing in sports and wildlife subjects. His bronzes have appeared in galleries in Carmel, Beverly Hills, and Sacramento.

Congratulations to Gordon Greeson on his promotion to daytime shift supervisor for Operations. Gordon joined the Center in September 1987 and has worked principally on the midnight-to-0800 shift. He is well-known for his enthusiasm for computer matters. He often brought in his laptop from home to help him manage the batch queues.

Dennis Mar

OPERATIONS INFORMATION

CONSULTING HOURS

Mon-Fri 0900-1130 and 1315-1545 in In-146

Reference materials in the Consulting Office must not be removed from that room without special permission of the Consultant on duty or a Computer Operations Shift Supervisor.

HOURS OF OPERATION

VM/CMS and MVS are available 24 hours a day, 7 days a week. Preventive maintenance is normally performed 0700-1400 hours, first Sunday of each month. Systems work may occasionally be performed between 0700 and 1200 on Saturdays; advance notice is given in the VM/CMS log message.

Call 646-2713 for recorded system status.

MICRO LAB CONSULTING HOURS

1000-1200 and 1330-1630 Monday - Friday

MICRO LAB OPEN HOURS

0900-1630 Monday-Friday

See Micro Lab assistants during consulting hours for combination to access Lab when it is closed.

MVS Job Queue Restrictions

No more than 3 MVS (Batch) jobs per individual may be executing and/or waiting execution. This policy allows each individual a fair share of batch processing capacity, and prevents spooling overload problems. Excess jobs will be cancelled.

Information on Printed Output

The Computer Center has an IBM 3800 non-impact printer and a 3262 impact printer in In-140. These printers are available around the clock, 7 days a week. (See "HOURS OF OPERATION"). If you want a printer unloaded, expect to wait until an operator is available. However, if you have received instruction from a computer operator, you may remove printout from either printer. If you do, please leave separated output on the counter-top, or file it by distribution code. Please observe these rules:

- Press the READY button after removing output.
- See that output is folding neatly in the printer.
- Separate all jobs in the batch of output removed from the printer.

Avoid unnecessary printing. Return output to your terminal for review and editing prior to printing. Use the default output class, SYSOUT=A, for general output from MVS. This produces two output pages per sheet of paper on the 3800 page printer.

Budget restrictions and good computing practice dictate that only one final copy of a thesis be produced on any of the Center's printers. If more than one copy is required, use of duplication facilities on campus is recommended. But please note that the NPS printshop will not cut or bind more than one personal copy.

Please put unwanted printout in any trash container in In-140, In-141, or In-151.

This publication is published as required and is written by members of the staff, W. R. Church Computer Center (Code 51), Naval Postgraduate School, Monterey, CA 93943. Send requests for information or suggestions for articles to the User Services Manager, Code 51 (In-133), 646-2752 (messages: x2573). Bitnet: 0002P@NAVPGS

The Center operates an Amdahl 5990-500 (256 megabytes processor storage, 512 megabytes expanded storage) loosely coupled with an IBM 3033 Model U (16 megabytes) and an IBM 4381 Model P13 (16 megabytes). Interactive computing is provided under VM/HPO CMS, batch-processing under MVS with JES3 networking.

Distribution: List 3, plus: 350-B3, 3-B4, 10-F3, 3-F4, 1-F6, 1-F7, 12-PERSEREC